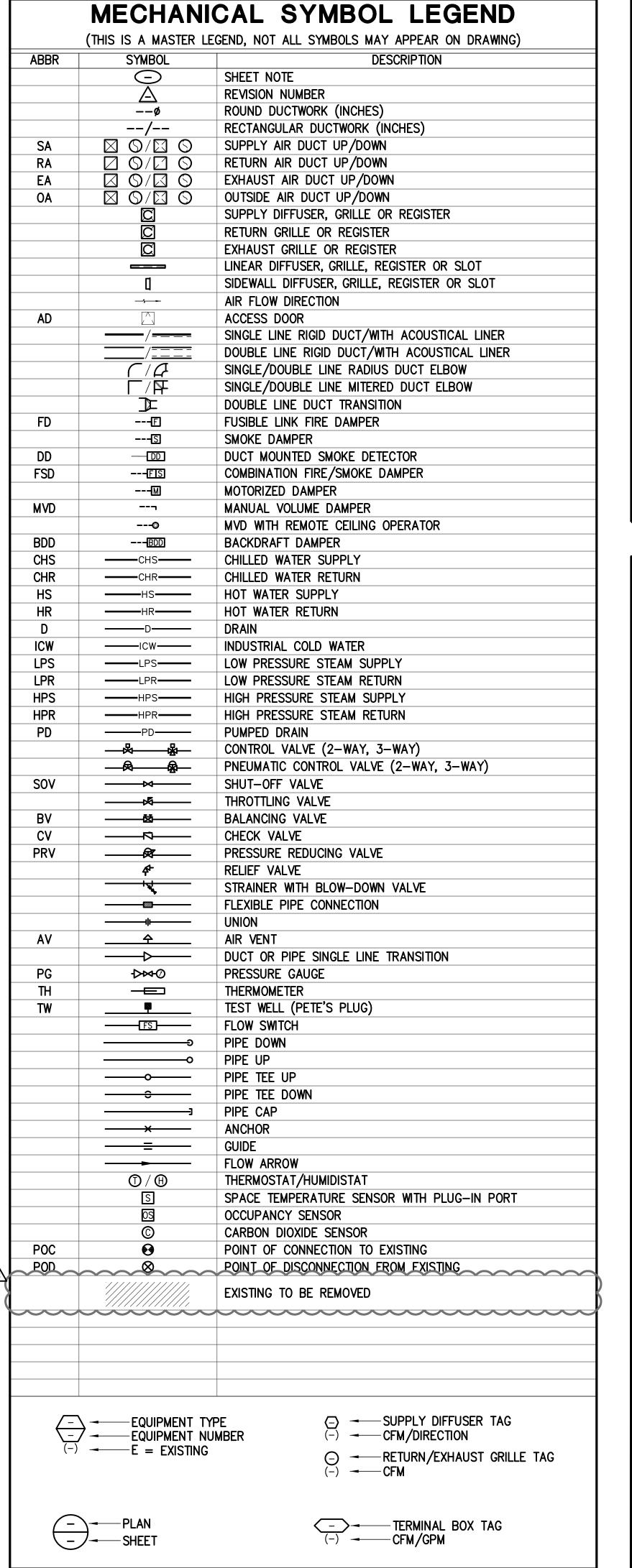
ABC					
ARC	AMERICAN AIR BALANCE COUNCIL	*F	DEGREES FAHRENHEIT	P	PUMP
CD	AUTOMATIC CONTROL DAMPER	FB	FAN POWERED TERMINAL BOX UNIT	PCF	POUND PER CUBIC FOOT
CU (AC)	AIR CONDITIONING UNIT	FCU (FC)	FAN COIL UNIT	PCU	POLLUTION CONTROL UNIT
	ACCESS DOOR	FLA	FULL LOAD AMPS	PD	PRESSURE DROP
DA .	AMERICANS WITH DISABILITIES ACT	FM	FLOW METER	PH	PHASE
	AIR FOIL	FPM	FEET PER MINUTE	POS	PROVIDED BY OTHER SECTION
F	ABOVE FINISH FLOOR	FPS	FEET PER SECOND	PPM	PARTS PER MILLION
- MS	AIR FLOW MEASURING STATION	FT	FEET	PRV	PRESSURE REDUCING VALVE
UE	ANNUAL FUEL UTILIZATION EFFICIENCY	• •	I LL I	PSI	POUND PER SQUARE INCH
IU (AH)	AIR HANDLING UNIT	GA	GAUGE	PSIA	POUND PER SQUARE INCH ABSOLUTE
	ACCESS PANEL	GAL	GALLONS	PSIG	POUND PER SQUARE INCH GAUGE
D	AIR PRESSURE DROP	GBS	GALVANIZED BIRD SCREEN	PTAC	PACKAGED THROUGH THE WALL AIR
ME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	GEF	GENERAL EXHAUST FAN	FIAC	CONDITIONER UNIT
JTO				DTUD	
710	AUTOMATIC	GPH	GALLONS PER HOUR	PTHP	PACKAGED THROUGH THE WALL HEAT PUM
	DOIL ED	GPM	GALLONS PER MINUTE		UNIT
S	BOILER	GR	GRILLE	DEED	DEEDICEDANT
	BUILDING AUTOMATION SYSTEM	ш	UEIOUT	REFR	REFRIGERANT
P	BRAKE HORSE POWER	H	HEIGHT	RH	RELATIVE HUMIDITY
10	BACKWARD INCLINED	HC	HEATING COIL	RPM	REVOLUTIONS PER MINUTE
IS	BUILDING MANAGEMENT SYSTEM	HD	HEAD	RTU	ROOFTOP UNIT
DD	BOTTOM OF DUCT	HOA	HAND OFF AUTO		
S	BOTTOM OF STEEL	HP	HORSE POWER	SD	SMOKE DAMPER
U	BRITISH THERMAL UNIT	HR	HOUR	SEER	SEASONAL ENERGY EFFICIENCY RATIO
		HWP	HOT WATER PUMP	SEF	SMOKE EXHAUST FAN
	DEGREES CELSIUS	НХ	HEAT EXCHANGER	SF	SUPPLY FAN
BC	CALIFORNIA BUILDING CODE	HZ	HERTZ	SH	STATIC HEAD
•	COOLING COIL			SOV	SHUT-OFF VALVE
)	CEILING DIFFUSER	IBC	INTERNATIONAL BUILDING CODE	SP	STATIC PRESSURE
•	CHEMICAL POT FEEDER	IFC	INTERNATIONAL FIRE CODE	SQ FT (ф)	SQUARE FEET
Ή	CUBIC FEET PER HOUR	iH	INTAKE HOOD	SS	STAINLESS STEEL
M	CUBIC FEET PER MINUTE	IMC	INTERNATIONAL MECHANICAL BUILDING CODE		OTAMINEE OF OTELE
-\\\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\	CHILLER	IN	INCH	T24	TITLE 24
' HWP	CHILLED WATER PUMP	IPC	INTERNATIONAL PLUMBING BUILDING CODE	TAB	TESTING AND BALANCING
		IFC	INTERNATIONAL PLUMBING BUILDING CODE	TCP	
VC	CALIFORNIA MECHANICAL CODE	1214	IZII OWATT		TEMPERATURE CONTROL PANEL
)	CARBON MONOXIDE	KW	KILOWATT	TD	TEMPERATURE DIFFERENCE
)2	CARBON DIOXIDE	•	LENOTH	TDH	TOTAL DEVELOPED HEAD
OND	CONDENSER	L -	LENGTH	TEL	TOTAL EQUIVALENT LENGTH
)P	COEFFICIENT OF PERFORMANCE	LAT	LEAVING AIR TEMPERATURE	TEMP (T)	TEMPERATURE
PC .	CALIFORNIA PLUMBING CODE	LBS	POUNDS	TF	TRANSFER FAN
•	COOLING TOWER	LWT	LEAVING WATER TEMPERATURE	TSP	TOTAL STATIC PRESSURE
	CONDENSING UNIT			TU	TERMINAL UNIT
1	CONSTANT VOLUME	MA	MIXED AIR TEMPERATURE	TYP	TYPICAL
IP	CONDENSER WATER PUMP	MAX	MAXIMUM		
		MBH	1000 BRITISH THERMAL UNITS PER HOUR	UH	UNIT HEATER
	DRY BULB TEMPERATURE	MCA	MINIMUM CIRCUIT AMPS	UMC	UNIFORM MECHANICAL CODE
	DECIBEL	MCC	MOTOR CONTROL CENTER	UNO	UNLESS NOTED OTHERWISE
,	DIRECT CURRENT	MERV	MINIMUM EFFICIENCY REPORTING VALUE	UPC	UNIFORM PLUMBING CODE
С	DIRECT DIGITAL CONTROL	MIN	MINIMUM	ÜV	ULTRA VIOLET
CFP	DIRECT DIGITAL CONTROL FIELD PANEL	MOCP	MAXIMUM OVER CURRENT PROTECTION	- •	Janus Web!
(ø)	DIAMETER			V	VOLT
F	DIFFUSER	NA	NOT APPLICABLE	VAV	VARIABLE AIR VOLUME
1	DOWN	NC	NORMALLY CLOSED (SPRING RETURN)	VD	VOLUME DAMPER (MANUAL)
l 1	DIFFERENTIAL PRESSURE	NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU	VEL	VELOCITY
· ·				VEL VFD	
	DUCT SUMP	NEC NEDA	NATIONAL ELECTRICAL CODE	۷۲U	VARIABLE FREQUENCY DRIVE
	DIRECT EXPANSION	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	W	MATT MENTE
	EVICTINO	NIC	NOT IN CONTRACT	VV C	WATT, WIDTH
-	EXISTING FAIR TEMPERATURE	NO	NORMALLY OPEN (SPRING RETURN)	WB	WET BULB TEMPERATURE
T	ENTERING AIR TEMPERATURE	NPS	NOMINAL PIPE SIZE	WC	WATER COLUMN
_	EVAPORATIVE COOLER	NPSHA	NET POSITIVE SUCTION HEAD AVAILABLE	WG	WATER GAUGE
₹	ENERGY EFFICIENCY RATIO	NPSHR	NET POSITIVE SUCTION HEAD REQUIRED	WMS	WIRE MESH SCREEN
	EXHAUST FAN	NPT	NATIONAL PIPE THREAD	WP	WATER PRESSURE
F	EFFICIENCY	NTS	NOT TO SCALE	WPD	WATER PRESSURE DROP
CS	ENERGY MANAGEMENT CONTROL SYSTEM			WSHP (WHP)	WATER SOURCE HEAT PUMP
	ELECTROMAGNETIC INTERFERENCE	OED	OPEN END DUCT	WT	WEIGHT
P	EXTERNAL STATIC PRESSURE	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	•••	··=·•··
	EXPANSION TANK	OPA	OSHPD PRE-APPROVAL OF ANCHORAGE		
T	ENTERING WATER TEMPERATURE	OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING AND		
		USI IF D			
(H	EXHAUST		DEVELOPMENT		
		OSP	OSHPD SPECIAL SEISMIC CERTIFICATION		

VA FORM 08-6231, OCT 1978



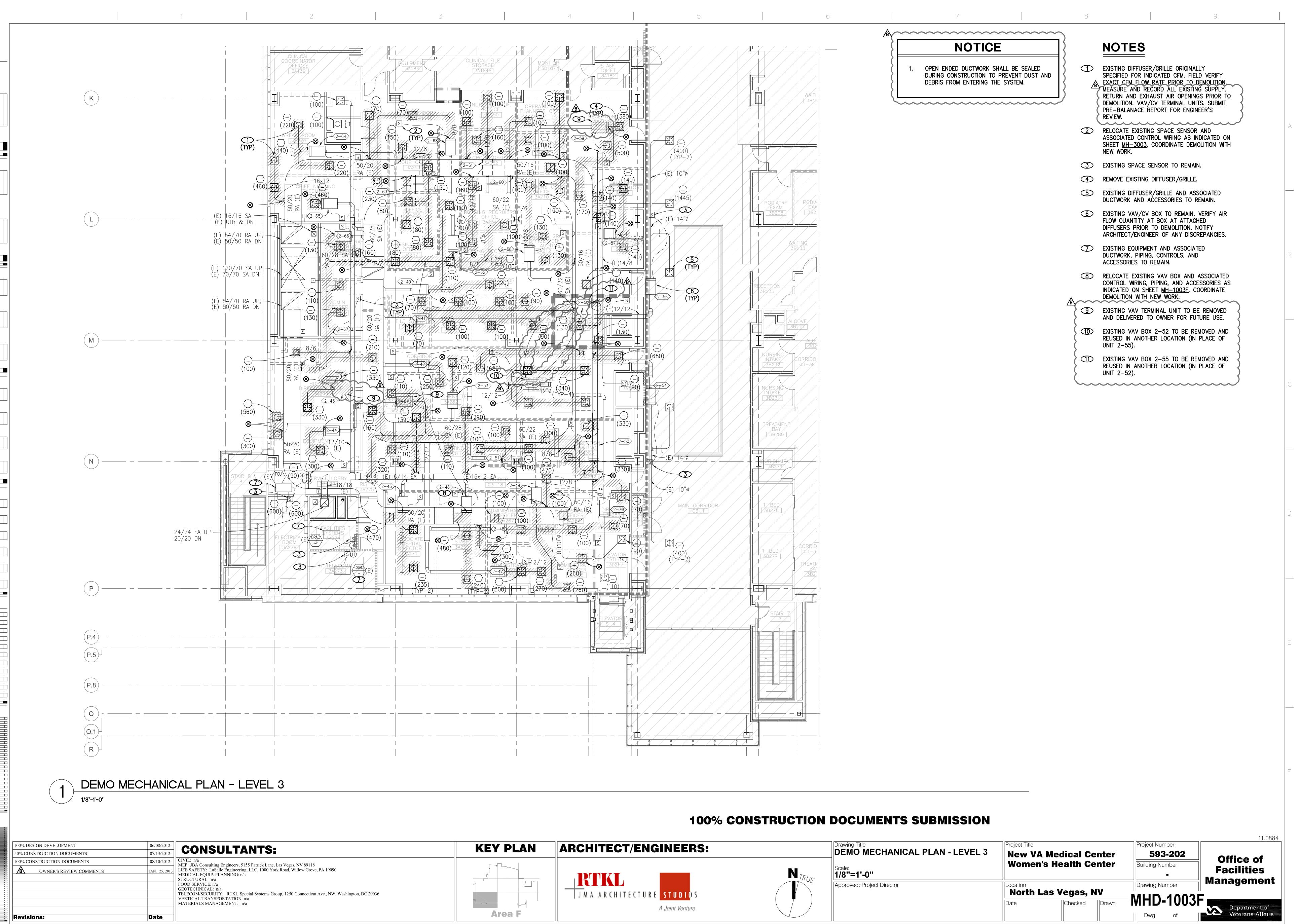
				SHEET INDEX
ISSUI	E			
	-25-2013 OWNER'S REVIEW COMMENTS	3-06-2012 100% CD		
	5	8	SHEET NUMBER	SHEET DESCRIPTION
	•	•	M-001	MECHANICAL SHEET INDEX, GENERAL NOTES, SYMB AND ABBR. LIST
	•	•	MHD-1003F	DEMO MECHANICAL PLAN - LEVEL 3
	•	•	MPD-1003F	DEMO MECHANICAL PIPING PLAN - LEVEL 3
	•	•	MH-1003F	MECHANICAL PLAN — LEVEL 3
	•	•	MH-1004F	MECHANICAL PLAN - ROOF
	•	•	MP-1003F	MECHANICAL PIPING PLAN — LEVEL 3
	•	•	MH-3003F	MECHANICA ZONING PLAN — LEVEL 3
	•	•	M-501	MECHANICAL - DETAILS
	•	•	M-601	MECHANICAL SCHEDULES
	•	•	M-602	MECHANICAL SCHEDULES
		•	M-901	MECHANICAL - CONTROL DIAGRAMS

MECHANICAL GENERAL NOTES

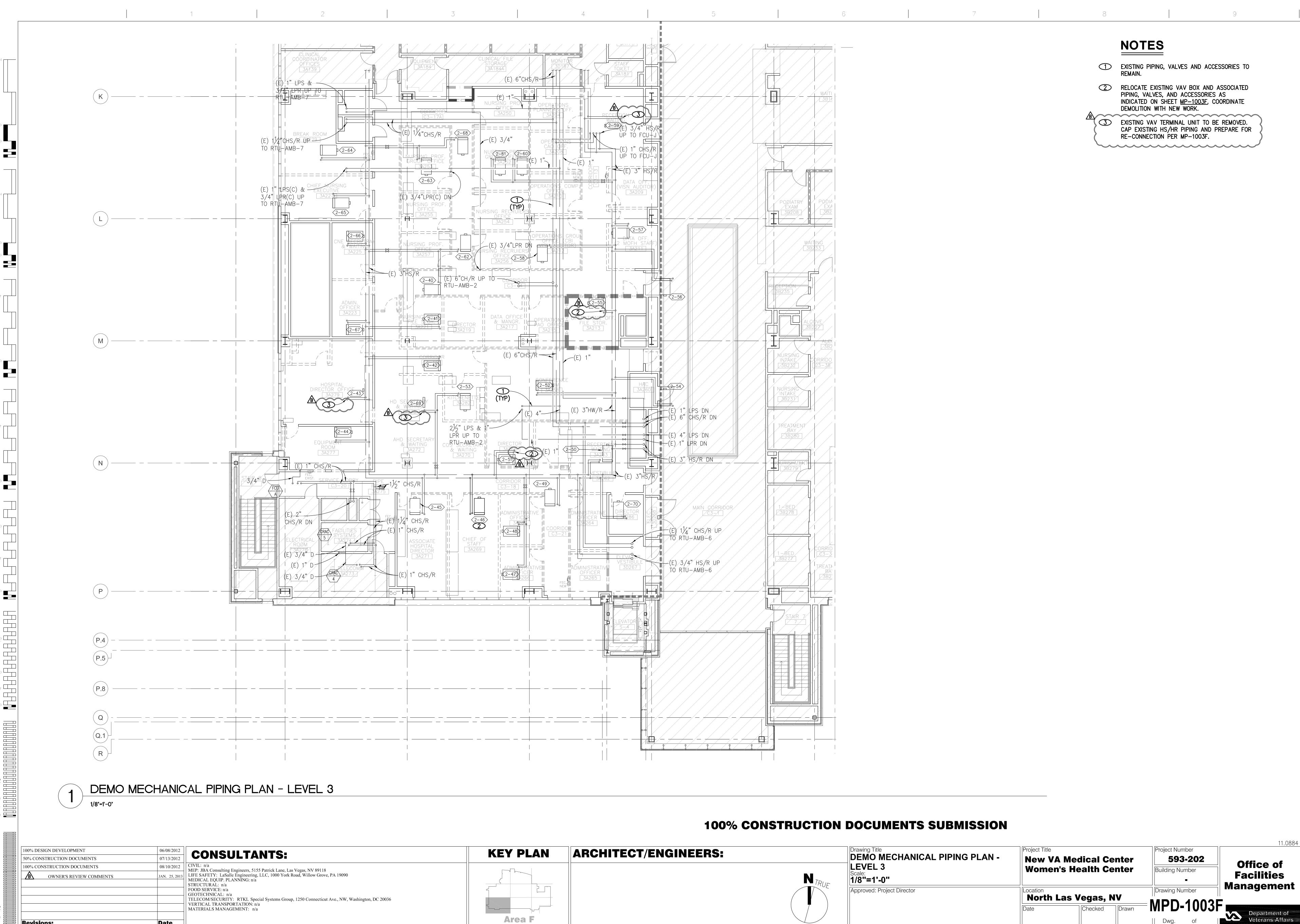
- EXISTING DUCTWORK, PIPING AND EQUIPMENT TO REMAIN IS SHOWN LIGHT. NEW DUCTWORK, PIPING AND EQUIPMENT IS SHOWN HEAVY. EXISTING DUCTWORK PIPING AND EQUIPMENT TO BE REMOVED IS SHOWN CROSSHATCHED.
- 2. ARCHITECTURAL DRAWINGS SHALL BE REVIEWED FOR PROJECT SCOPE AND AREA OF WORK. WORK SHALL INCLUDE DEMOLITION AND REMOVAL OF EXISTING MECHANICAL SYSTEMS AS REQUIRED. MECHANICAL SYSTEMS IN EXISTING WALLS AND UNDER GROUND SHALL BE REMOVED AND CAPPED AS REQUIRED. RECONNECT EXISTING PIPING AND DUCTWORK NOT IN DEMOLITION AREA AS REQUIRED TO MAINTAIN A COMPLETE AND OPERABLE SYSTEM.
- THE OWNER RESERVES FIRST CHOICE TO KEEP EXISTING EQUIPMENT AND MATERIALS. COORDINATE WITH OWNER AND DELIVER DESIGNATED EQUIPMENT AND MATERIALS REMOVED UNDER THIS CONTRACT TO OWNERS DESIGNATED STORAGE AREA.
- . UNLESS NOTED OTHERWISE, FLEXIBLE DUCTS TO TERMINAL UNITS, DIFFUSERS, REGISTERS, AND GRILLES SHALL BE SAME SIZE AS NECK.
- LENGTH OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0" MAXIMUM HORIZONTAL RUN WITH ONLY ONE 90" BEND. SECURE FLEXIBLE DUCTWORK WITH SCREWS AND DRAWBANDS.
- 6. DUCT SIZES INDICATED ARE NET INSIDE CLEAR DIMENSIONS.
- PROVIDE GEAR OPERATED CEILING OPERATORS FOR INACCESSIBLE MANUAL VOLUME DAMPERS WITH CEILING ESCUTCHEON AND COVER PLATE. COORDINATE EXACT LOCATION OF COVER PLATE WITH ARCHITECT.
- ITEM DESIGNATIONS INDICATED ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY WITH OWNER ACTUAL "TAGGING" INFORMATION TO BE PROVIDED FOR EACH ITEM OF MECHANICAL EQUIPMENT PRIOR TO NAMEPLATE ORDER RELEASE.
- THE MECHANICAL DETAILS SHALL BE INCORPORATED INTO THE ASSOCIATED WORK AND PROVIDE GENERAL GUIDANCE AS TO THE INSTALLATION INTENT WHETHER REFERENCED TO OR NOT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY COMPONENTS FOR A COMPLETE INSTALLATION AND ENSURE THAT ALL INSTALLATIONS ARE IN ACCORDANCE WITH THE EQUIPMENT'S LISTING AND MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTION.
- O. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ACTUAL LOCATION OF GRILLES, REGISTERS, DIFFUSERS AND ACCESS PANELS IN CEILING AND FOR DIMENSIONED LENGTHS OF LINEAR DIFFUSERS. COORDINATE DIFFUSER BORDER TYPES WITH CEILING TYPE SCHEDULED IN ARCHITECTURAL REFLECTED CEILING PLANS.
- II. TURNING VANE RUNNERS SHALL HAVE A VANE IN EVERY SLOT IN STRICT CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS AND SMACNA DUCT CONSTRUCTION STANDARDS.
- 12. FIELD VERIFY FIT OF DUCTWORK AND PIPING PRIOR TO FABRICATION.
- 13. COORDINATE AND VERIFY ACTUAL APPROVED EQUIPMENT DIMENSIONS PRIOR TO POURING CONCRETE EQUIPMENT PADS. COORDINATE EQUIPMENT PAD DIMENSIONS WITH VIBRATION/SEISMIC ISOLATION REQUIREMENT.
- 14. REFER TO EQUIPMENT DRAWINGS, SPECIFICATIONS AND SHOP DRAWINGS FOR CONNECTION REQUIREMENTS TO EQUIPMENT.
- 15. EQUIPMENT START-UP SHALL BE BY MANUFACTURER'S AUTHORIZED REPRESENTATIVE.
- 16. SEISMIC RESTRAINTS SHALL BE PROVIDED PER THE 2009 IBC, VA SPECIFICATIONS SECTION 130541, AND THE SMACNA SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE PROPOSED RESTRAINTS, STRUCTURAL ATTACHMENT METHODS AND RESTRAINT LOCATIONS TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE SUBMITTED DOCUMENTS SHALL BE PREPARED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NEVADA.
- 7. INSTALL SPACE SENSORS AT MOUNTING HEIGHT 48" ABOVE FINISHED FLOOR IN ACCORDANCE WITH ADA REQUIREMENTS. COORDINATE EXACT LOCATION IN FIELD WITH GENERAL CONTRACTOR AND ARCHITECT.
- 8. PROVIDE GATE, BALL, AND BUTTERFLY VALVES FOR SHUT-OFF AND ISOLATION APPLICATIONS.
 PROVIDE GLOBE AND ANGLE VALVES FOR BYPASSES AND OTHER APPLICATIONS WHERE THROTTLING MAY BE REQUIRED.
- MOUNT EQUIPMENT CONTROLLER AND VFDS WITH THE CONTROL INTERFACE BETWEEN 36 AND 72 INCHES AFF.

100% CONSTRUCTION DOCUMENTS SUBMISSION

11.0884 Project Title Project Number 100% DESIGN DEVELOPMENT **KEY PLAN ARCHITECT/ENGINEERS: CONSULTANTS:** MECHANICAL SHEET INDEX, GENERAL 593-202 **New VA Medical Center** 50% CONSTRUCTION DOCUMENTS 07/13/2012 Office of NOTES, SYMB AND ABBR. LIST 100% CONSTRUCTION DOCUMENTS 08/10/2012 **Women's Health Center** Building Number MEP: JBA Consulting Engineers, 5155 Patrick Lane, Las Vegas, NV 89118 **Facilities** JAN. 25, 2013 | LIFE SAFETY: LaSalle Engineering, LLC, 1000 York Road, Willow Grove, PA 19090 OWNER'S REVIEW COMMENTS NO SCALE RTKL MEDICAL EQUIP. PLANNING: n/a Management STRUCTURAL: n/a FOOD SERVICE: n/a Approved: Project Director Drawing Number GEOTECHNICAL: n/a North Las Vegas, NV JMA ARCHITECTURE STUDIOS TELECOM/SECURITY: RTKL Special Systems Group, 1250 Connecticut Ave., NW, Washington, DC 20036 VERTICAL TRANSPORTATION: n/a Checked MATERIALS MANAGEMENT: n/a Department of Veterans Affairs A Joint Venture Dwg. **Revisions:** Date



VA FORM 08-6231, OCT 1978

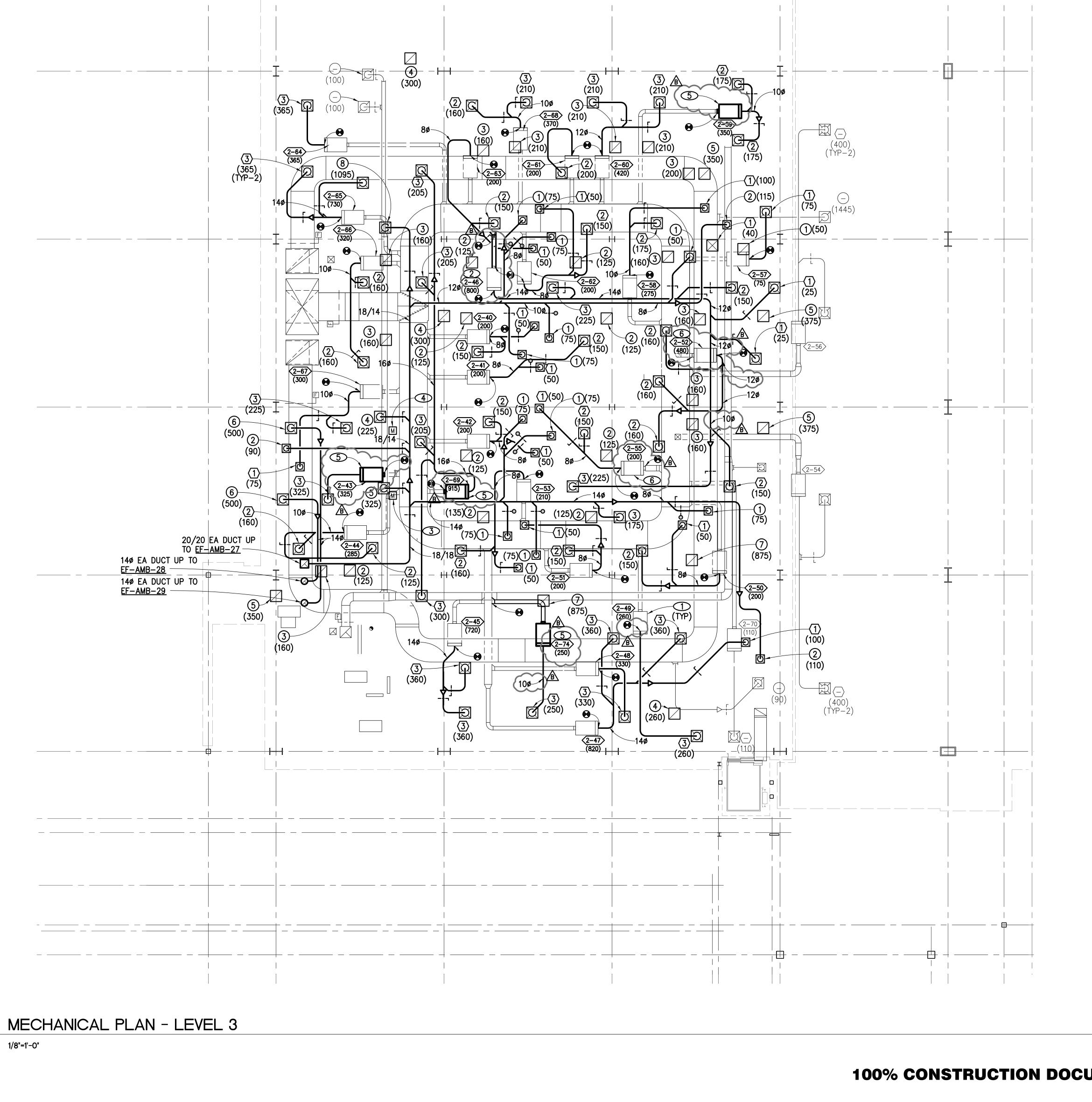


Revisions:

VA FORM 08-6231, OCT 1978

Date

Dwg.



VA FORM 08-6231, OCT 1978

NOTES

REFER TO SHEET M-501 FOR TERMINAL UNIT INSTALLATION DETAILS.

NOTES

NEW VAV TERMINAL UNITS AND RELOCATED VAV BOXES SHALL BE SEISMICALLY BRACED AS REQUIRED PER 2009 IBC. REFER TO GENERAL NOTE 16 ON SHEET M-001.

- RELOCATE EXISTING VAV BOXES AS REQUIRED BASED UPON REVISED FULL HEIGHT WALL LOCATIONS. PROVIDE ADDITIONAL DUCTWORK, PIPING AND CONTROL WIRING AS REQUIRED FOR COMPLETE SYSTEM OPERATION.
- RELOCATED EXISTING VAV BOX AND ASSOCIATED DUCTWORK, PIPING, VALVES AND ACCESSORIES. PROVIDE ADDITIONAL PIPING AND DUCTWORK AS REQUIRED FOR COMPLETE SYSTEM OPERATION.
- PROVIDE A MOTOR RATED SWITCH FOR EXHAUST FAN <u>EF-AMB-28</u> WITHIN ROOM 3A337 -TREATMENT FOR ENABLE/DISABLE OPERATION OF THE ASSOCIATED EXHAUST FAN.
- PROVIDE A MOTOR RATED SWITCH FOR EXHAUST FAN <u>EF-AMB-29</u> WITHIN ROOM 3A338 -TREATMENT FOR ENABLE/DISABLE OPERATION OF THE ASSOCIATED EXHAUST FAN.
- 5 NEW VAV TERMINAL UNIT, REF 5/M-501.
- RELOCATED VAV TERMINAL UNIT AT NEW LOCATION. RECONNECT TO DUCTWORK PER 5/M-501.

100% CONSTRUCTION DOCUMENTS SUBMISSION

11.0884 Drawing Title

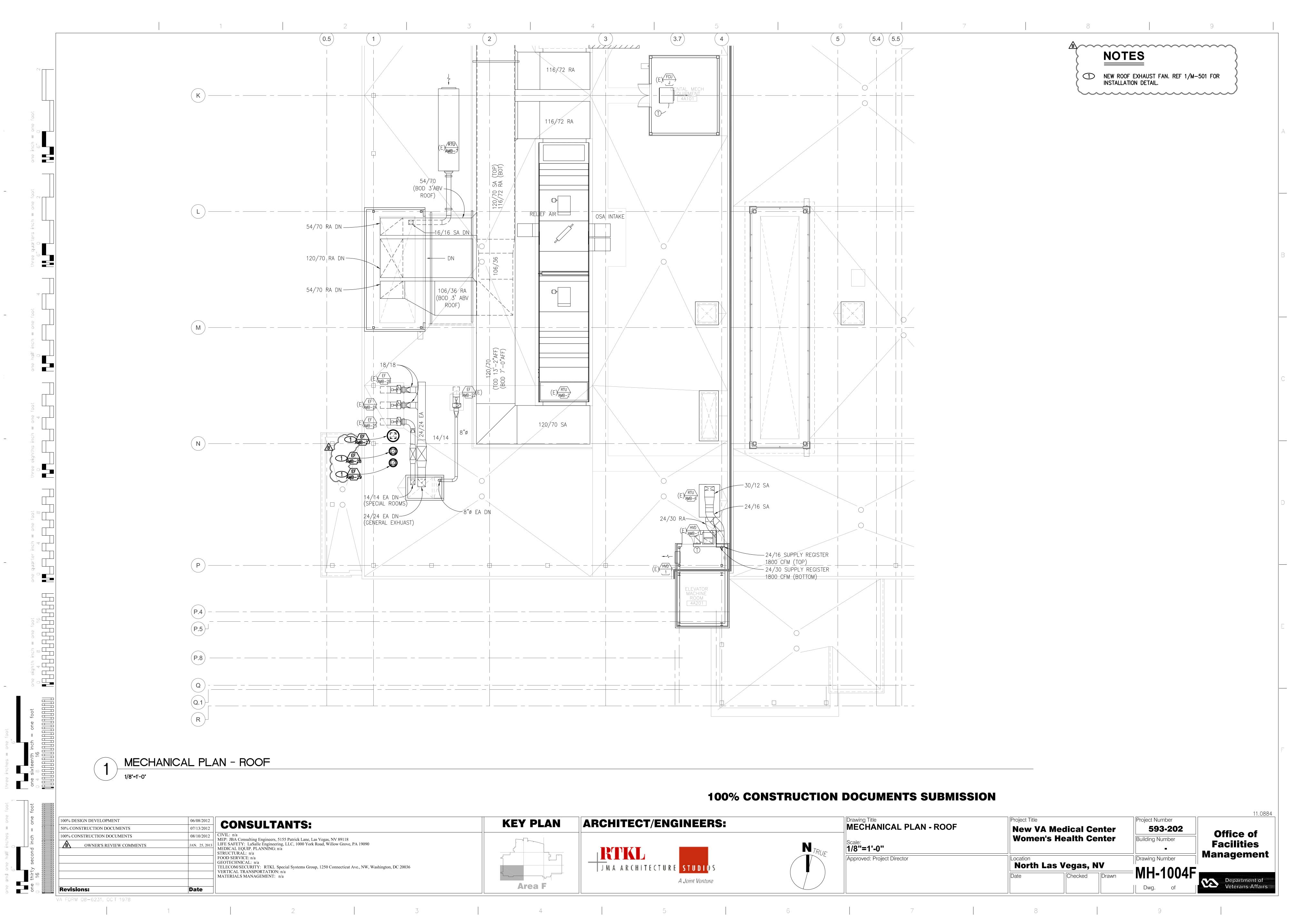
MECHANICAL PLAN - LEVEL 3 Project Title Project Number 100% DESIGN DEVELOPMENT **KEY PLAN** ARCHITECT/ENGINEERS: **CONSULTANTS:** 07/13/2012 **New VA Medical Center** 593-202 50% CONSTRUCTION DOCUMENTS Office of JAN. 25, 2013

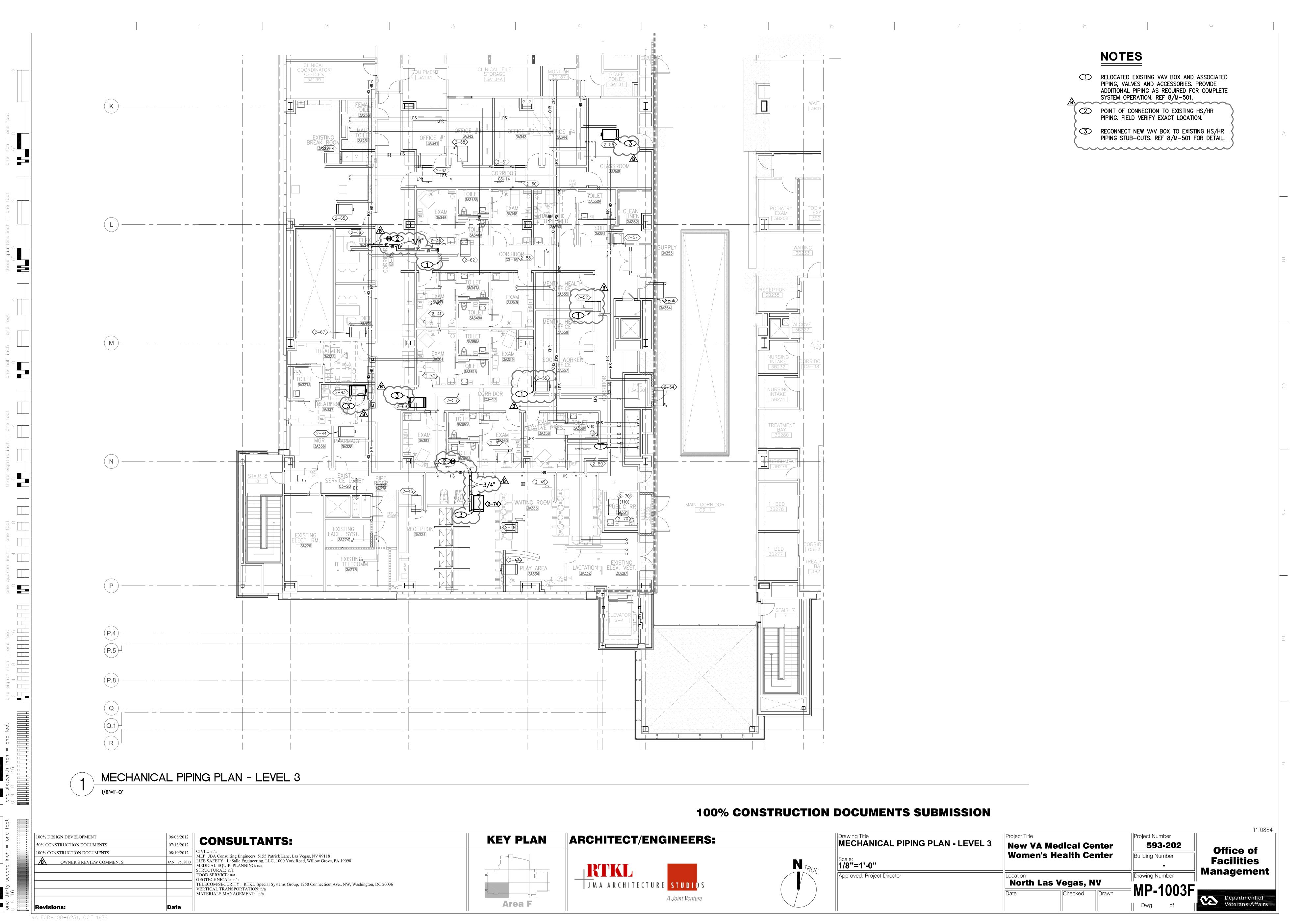
MEP: JBA Consulting Engineers, 5155 Patrick Lane, Las Vegas, NV 89118

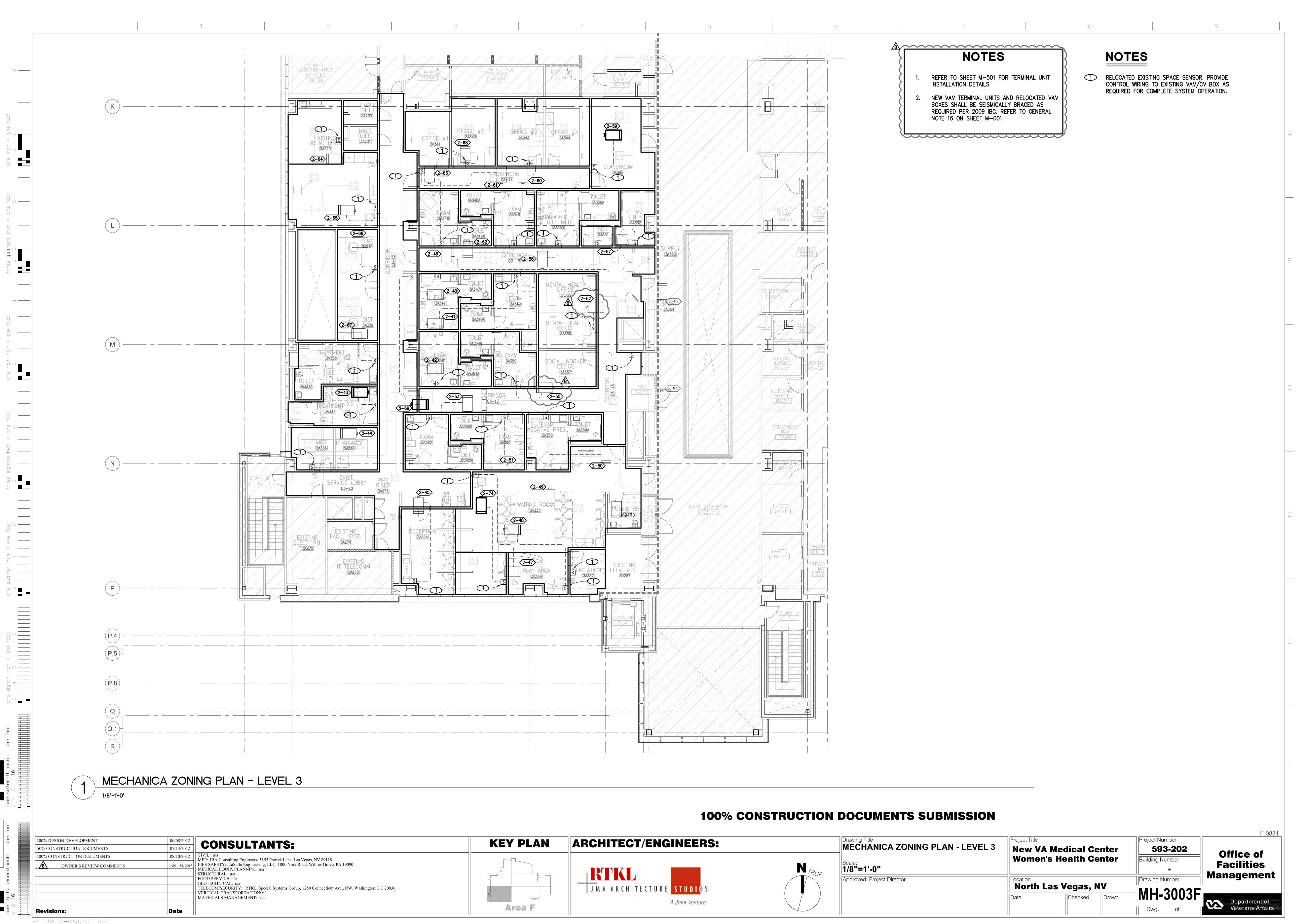
LIFE SAFETY: LaSalle Engineering, LLC, 1000 York Road, Willow Grove, PA 19090

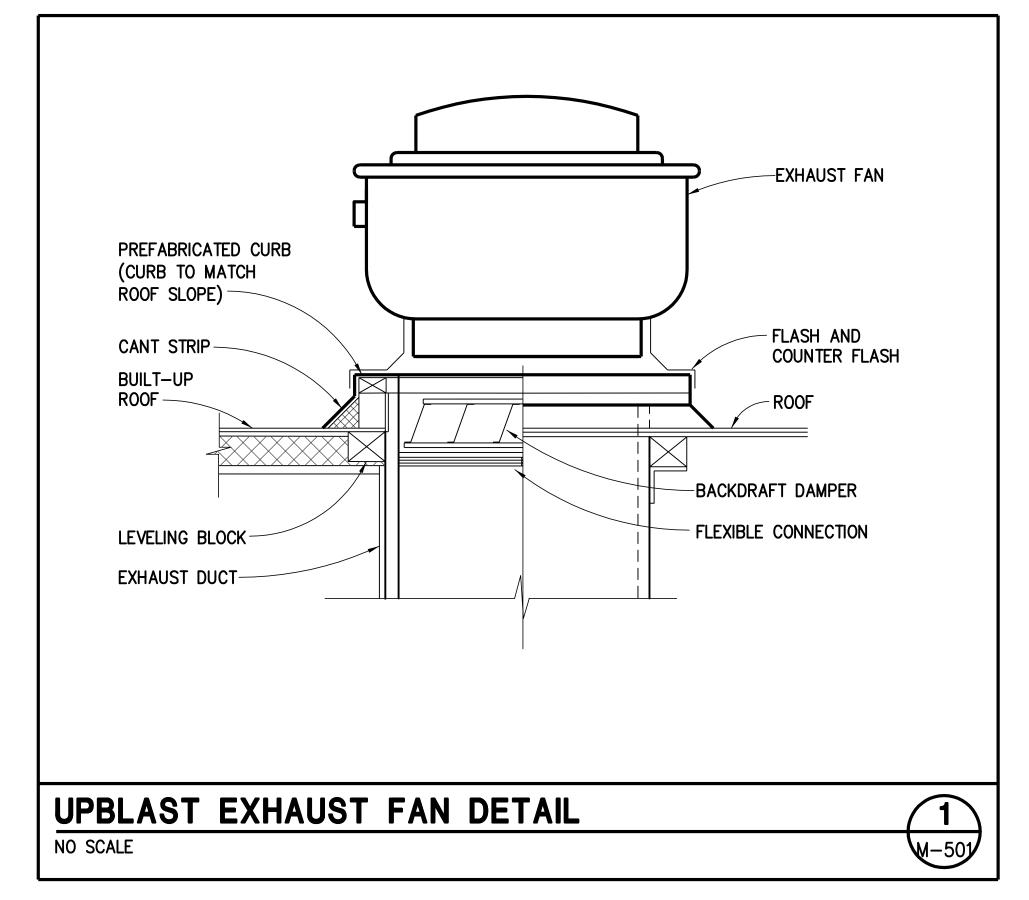
MEDICAL EQUIP. PLANNING: n/a

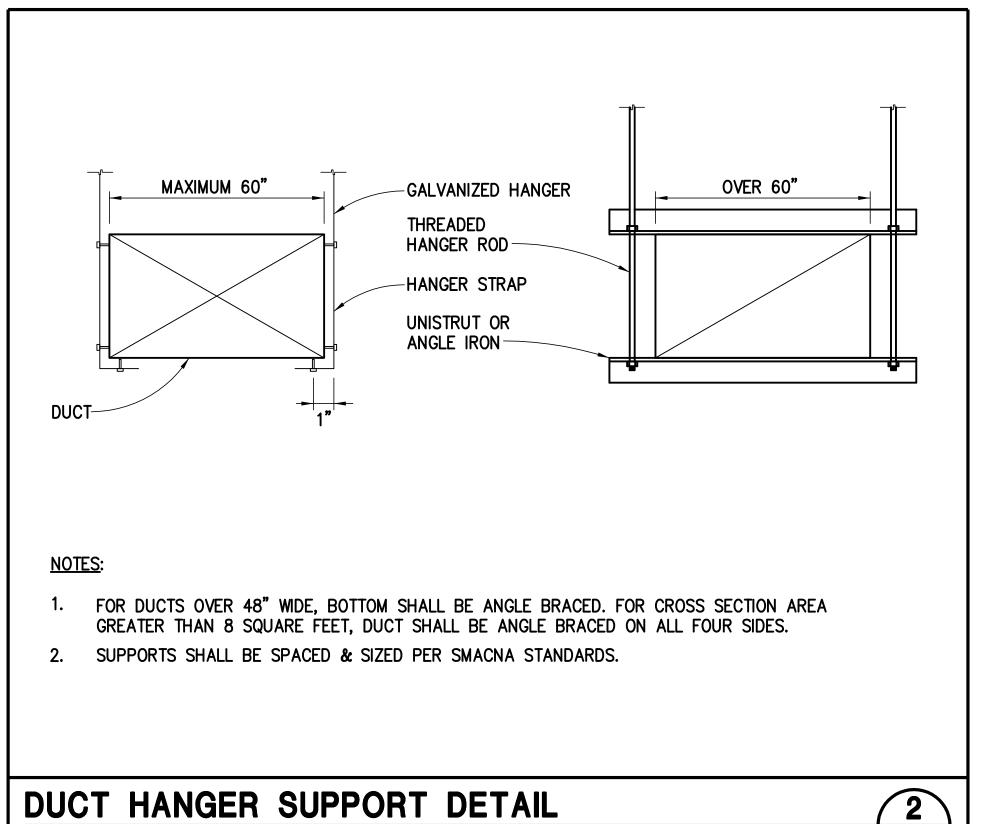
STRUCTURAL: n/a 100% CONSTRUCTION DOCUMENTS 08/10/2012 **Women's Health Center** Building Number **Facilities** N TRUF OWNER'S REVIEW COMMENTS 1/8"=1'-0" RTKL Management FOOD SERVICE: n/a GEOTECHNICAL: n/a Drawing Number Approved: Project Director J M A ARCHITECTURE STUDIOS North Las Vegas, NV TELECOM/SECURITY: RTKL Special Systems Group, 1250 Connecticut Ave., NW, Washington, DC 20036 MH-1003F VERTICAL TRANSPORTATION: n/a Checked MATERIALS MANAGEMENT: n/a Department of Veterans Affairs A Joint Venture Dwg. **Revisions:** Date



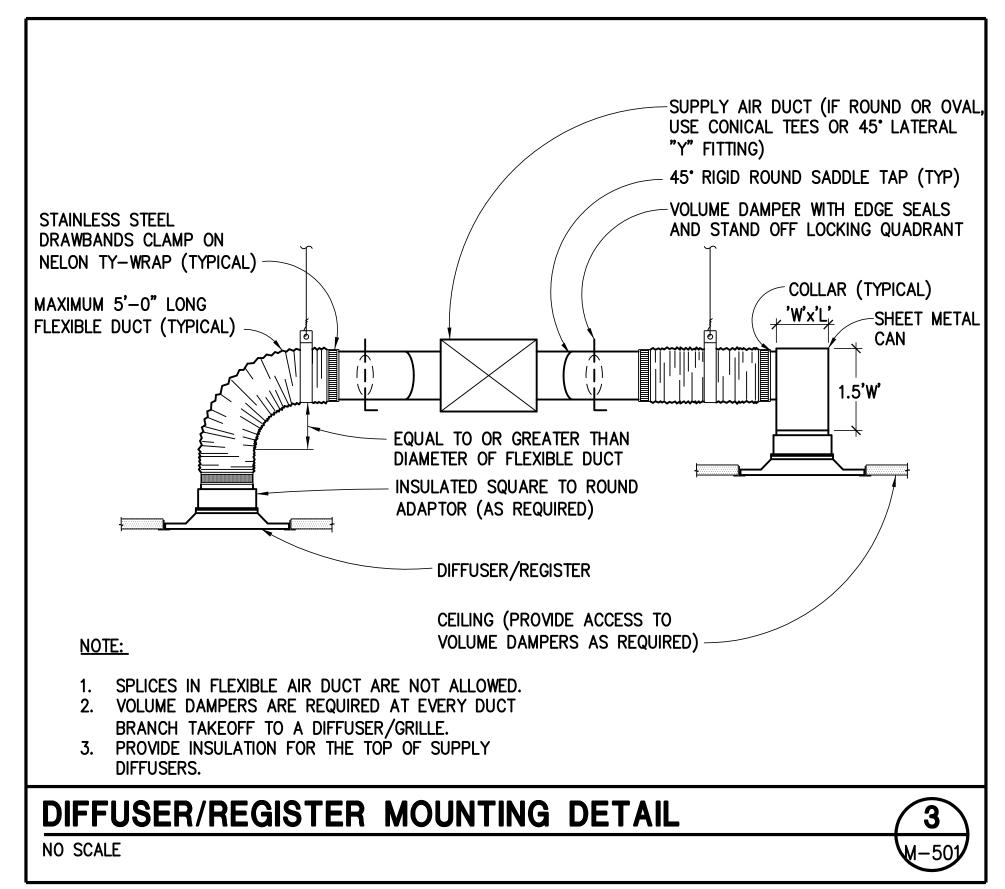


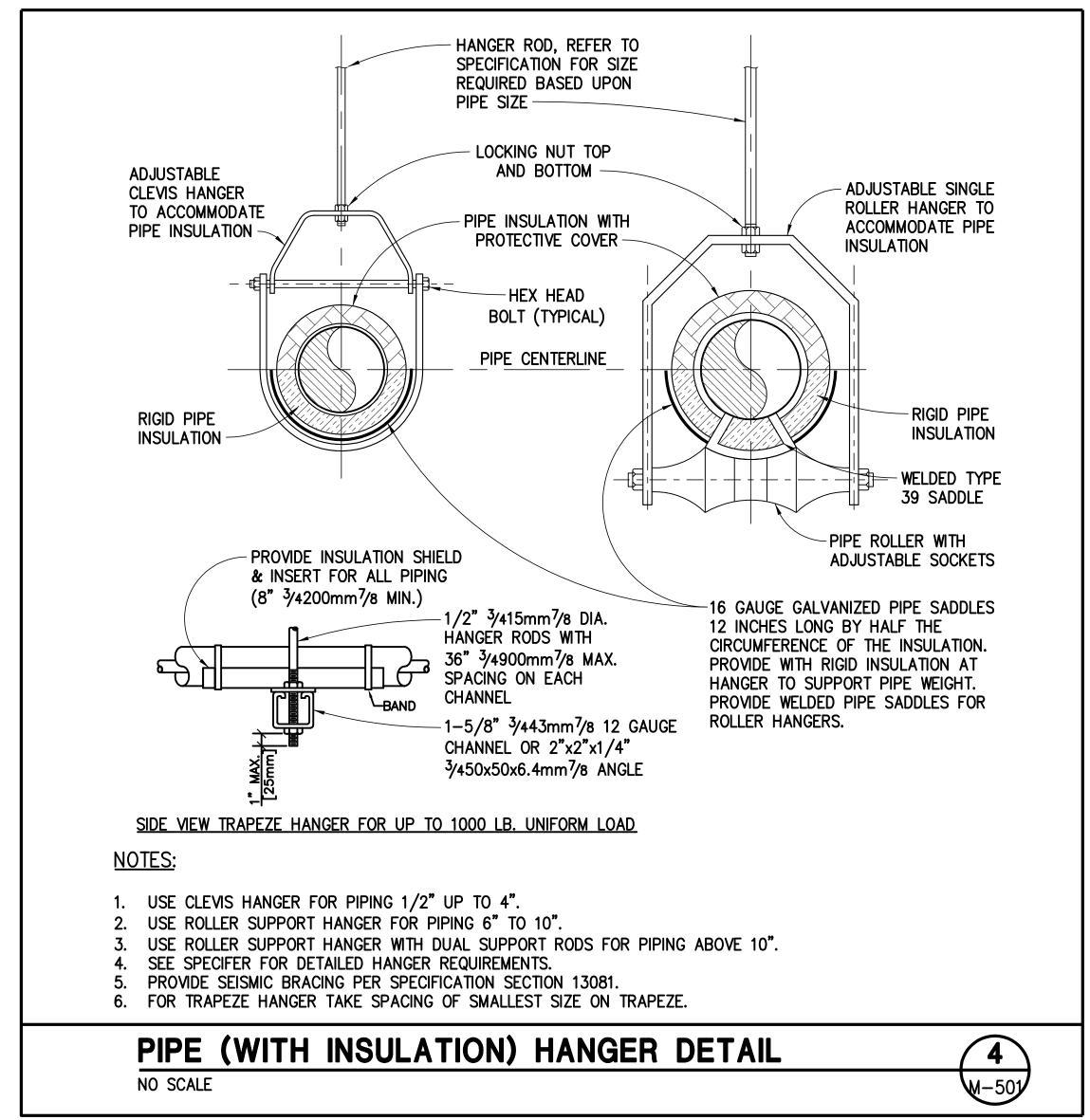




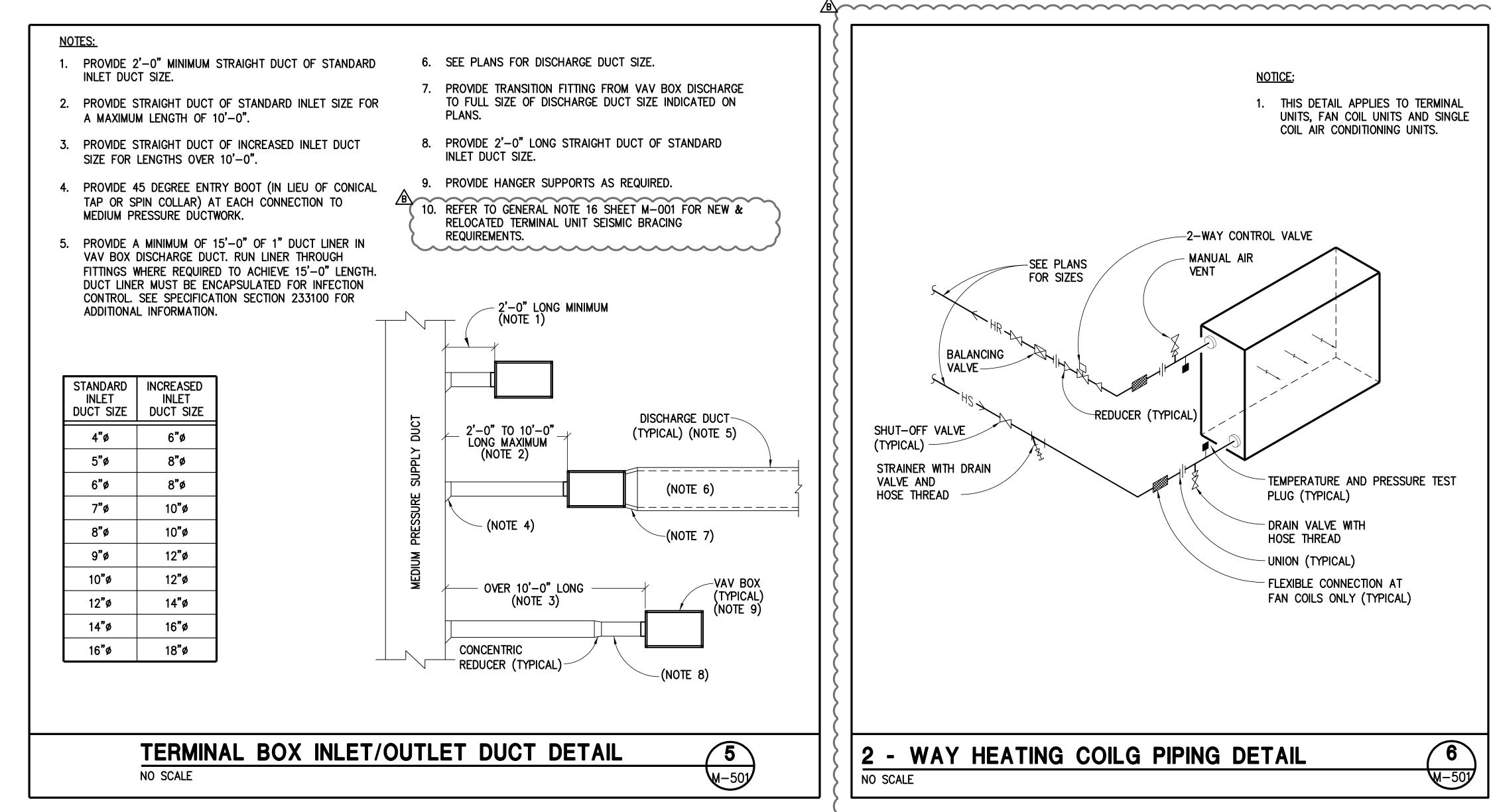


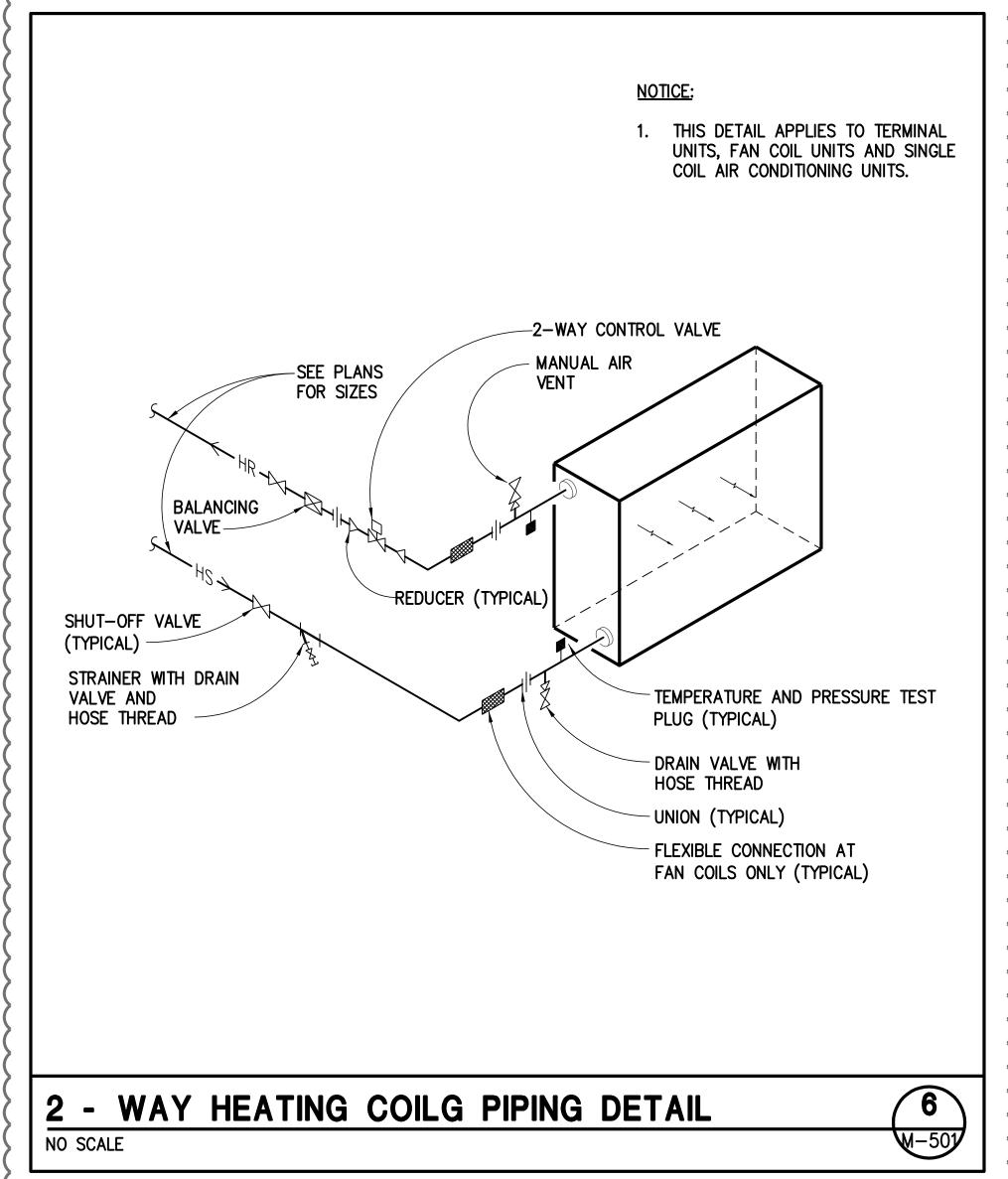
M-501





VA FORM 08-6231, OCT 1978



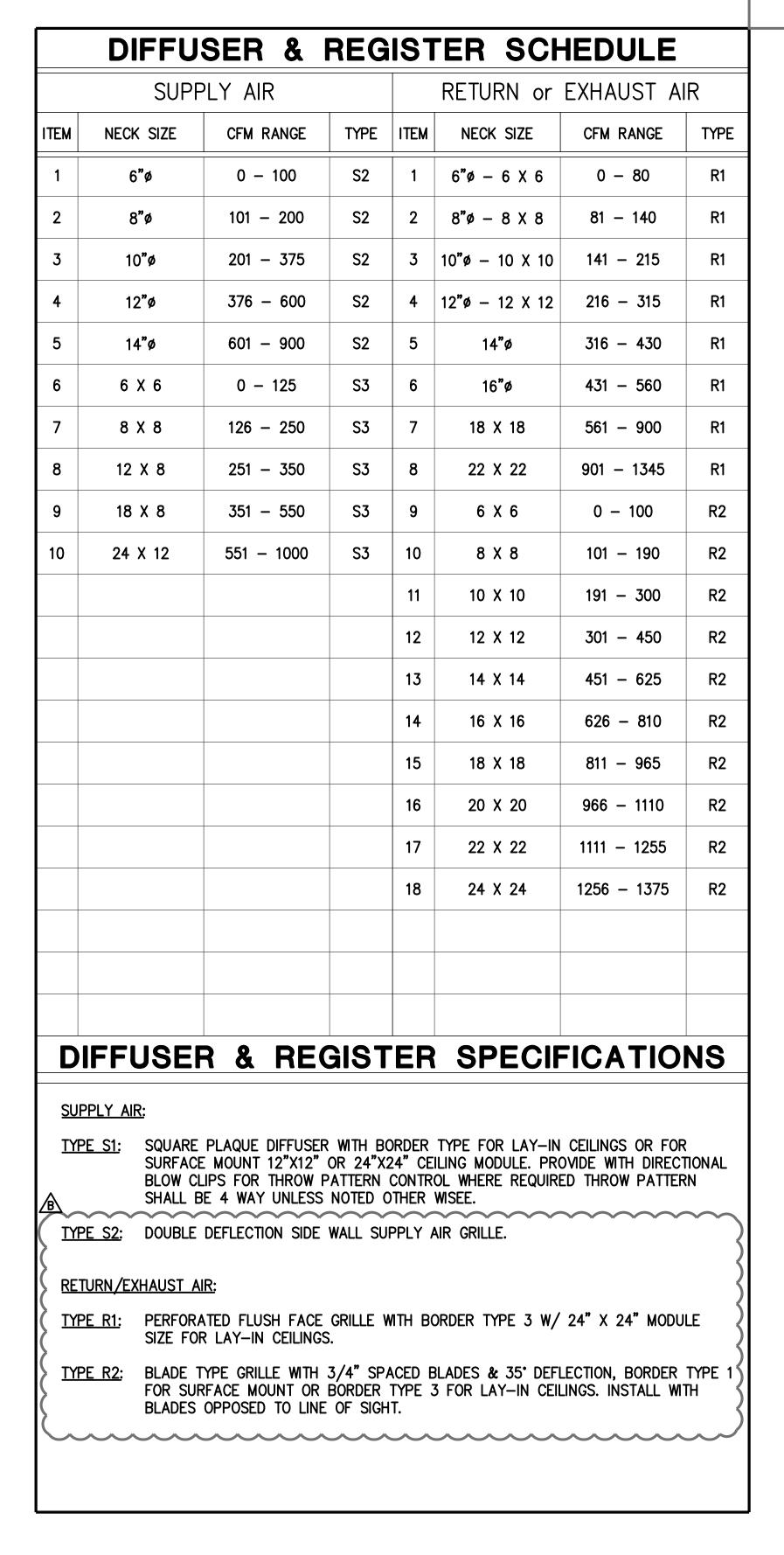


100% CONSTRUCTION DOCUMENTS SUBMISSION

							11.0884
100% DESIGN DEVELOPMENT	06/08/2012 CONSULTANTS:	KEY PLAN	ARCHITECT/ENGINEERS:	Drawing Title	Project Title	Project Number	
50% CONSTRUCTION DOCUMENTS	07/13/2012 CONSCLIANTS.		Aliginization	MECHANICAL - DETAILS	New VA Medical Center	593-202	Office of
100% CONSTRUCTION DOCUMENTS	08/10/2012 CIVIL: n/a MEP: JBA Consulting Engineers, 5155 Patrick Lane, Las Vegas, NV 89118				Women's Health Center	Building Number	
OWNER'S REVIEW COMMENTS	JAN. 25, 2013 LIFE SAFETY: LaSalle Engineering, LLC, 1000 York Road, Willow Grove, PA 19090 MEDICAL EQUIP. PLANNING: n/a			NTS		_	Facilities
	STRUCTURAL: n/a						┤ Management │
	FOOD SERVICE: n/a GEOTECHNICAL: n/a			Approved: Project Director	North Las Vegas, NV	Drawing Number	
	TELECOM/SECURITY: RTKL Special Systems Group, 1250 Connecticut Ave., NW, Washington, DC 20036 VERTICAL TRANSPORTATION: n/a		JMA ARCHITECTURE STUDIOS			M-501	
	MATERIALS MANAGEMENT: n/a		A Joint Venture		Date Checked Drawn		Department of
Revisions:	Date -	Area F	A down venture			Dwg. of	Department of Veterans Affairs

2 5 5

NO SCALE



						Т	ERM	INAL	UNIT	SCI	HEDUL	_E				
				INLET	DESIGN COOLING	MINIMUM AIRFLOW	MAX AIR PRESSURE	MAX DISCHARGE	MAX RADIATED			REHE	AT COIL			
	ITEM	TY	YPE	SIZE (IN)	(CFM)	(CFM)	DROP (IN WG)	NC @ 1.5" INLET SP	NC @1.5" INLET SP	AIRFLOW (CFM)	CAPACITY (MBH)	GPM	ROWS	MAX WPD (FT WG)	RUN-OUT SIZE	NOTES
2-40>	TU-1N2-3040	B	cv	6 B	200	200	_	30	30	200	10	0.5	2	_	3/4"	1, 2
₹2-41	TU-1N2-3041	C	CV	6	200	200	} –	30	30	200	10	0.5	2	_	3/4"	1, 2
(2-42)	TU-1N2-3042	C	CV	6	200	200	_	30	30	200	10	0.5	2	_	3/4"	1, 2
2-43	TU-1N2-3043	()	CV	6	325	325	_	30	30	325	10	0.5	2	-	3/4"	1, 3, 4, 5, 6
2-44	TU-1N2-3044	(V	'AV	6	285	170	_	30	30	200	10	0.5	2	_	3/4"	1, 2
(2-45)	TU-1N2-3045	V	'AV	8	720	250	_	30	30	350	20	1.0	2	-	3/4"	1, 2
(2-46)	TU-1N2-3046	V	'AV	8	800	295	_	30	30	350	20	1.0	2	-	3/4"	1, 2, 7
2-47>	TU-1N2-3047	V	'AV	8	820	325	_	30	30	350	20	1.0	2	-	3/4"	1, 2
2-48	TU-1N2-3048		'AV	6	330	90	_	30	30	200	10	0.5	2	-	3/4"	1, 2
(2-49)	TU-1N2-3049		'AV	6	260	90	_	30	30	200	10	0.5	2	-	3/4"	1, 2
(2-50)	TU-1N2-3050	B	CV	6	200	200	_	30	30	200	10	0.5	2	_	3/4"	1, 2
2-51	TU-1N2-3051	0	CV	6	200	200	-	30	30	200	10	0.5	2	-	3/4"	1, 2 1, 2 7
2-52>	TU-1N2-3052	A	/AV	8	480	370	-	30	30	350	20 B 10	1.0	2	_	3/4"	1, 2, 7
2-53	10-1N2-3033		CV	6	210	210	<u> </u>	30	30	210	10	0.5	2	_	3/4"	1, 2 (FOR REFERENCE) B
2-54	TU-1N2-3054		'AV	8	800	490	<u> </u>	30	30	350	20	1.0	2	_	3/4"	
2-55	TU-1N2-3055		CV	6	200			30	30	200	20	0.5	2	_	3/4" 3/4"	1, 2, 7
2-56	TU-1N2-3056 TU-1N2-3057	A	VAV	8	800 75	460 75	<u> </u>	30	30	350 75	10	0.5	2	_	74 3/4"	1, 2 (FOR REFERENCE) 1, 2
(2-57) (2-58)	TU-1N2-3058	_	CV	6	275	275) -	30	30	275	10	0.5	2		74 3/4"	1, 2
2-59	TU-1N2-3059		/AV	6	350	285) -	30	30 <u>/B</u>		10	0.5	2	_	3/4"	1, 2 1, 3, 4, 5, 6
2-60	TU-1N2-3060	<u></u>	/AV	6	420	230) 	30	30	200	10	0.5	2	_	3/4"	1, 2
(2-61)	TU-1N2-3061		'AV	6	200	70) _	30	30	200	10	0.5	2	_	3/4"	1, 2
(2-62)		B		6	200	200	_	30	30	200	10	0.5	2	_	3/4"	1, 2
2-63	TU-1N2-3063	\rightarrow	cv)	6	200	200	_	30	30	200	10	0.5	2	_	3/4"	1, 2
(2-64)	TU-1N2-3064	V	/AV	6	365	190	_	30	30	200	10	0.5	2	-	3/4"	1, 2
2-65>	TU-1N2-3065	V	'AV	8	730	345	_	30	30	350	20	1.0	2	_	3/4"	1, 2
(2-66)	TU-1N2-3066	B V	/AV	6	320	250	_	30	30	200	10	0.5	2	-	3/4"	1, 2
(2-67)	TU-1N2-3067	C	CV	6	300	300	_	30	30	300	10	0.5	2	-	3/4"	1, 2
2-68>	TU-1N2-3068	V	'AV	6	370	205	-	30	30	200	10	0.5	2	-	3/4"	1, 2
(2-69)	TU-1N2-3069	(V/	'AV	10	915	360	-	30	30	350	20	1.0	2	-	3/4"	1, 3, 4, 5, 6
(2-70)	TU-1N2-3070	V	'AV	6	110	50	_	30	30	200	10	0.5	2	-	3/4"	1, 2 (FOR REFERENCE)
(2-74)	TU-1N2-3074	V	'AV	6	250	125	-	30	30	200	10	0.5	2	_	3/4"	1, 3, 4, 5, 6
		,	1		~~~				AC.	~~~	~~~	~~~	~~~	~~~	~~~	

- 1. HEATING CAPACITY BASED ON 180°F ENTERING WATER TEMPERATURE.
- 2. EXISTING VAV BOX RE—BALANCED FOR INDICATED CFM VALUE.
- 3. COORDINATE LOCATION WITH ARCHITECTURAL AND ELECTRICAL PLANS.
- 4. PROVIDE 120V/1 PHASE, TRANSFORMER AND ENCLOSURE FOR CONTROL CIRCUIT.

DEFAULT (AS VIEWED FROM THE TERMINAL INLET).

6. PROVIDE FACTORY HANGER BRACKETS (4 BRACKETS PER VAV BOX) AND BOTTOM ACCESS PANEL.

5. THE TERMINAL SHALL BE CONFIGURED WITH THE DISCONNECT, CONTROL ENCLOSURE AND

PIPING CONNECTIONS LOCATED ON THE SAME SIDE OF THE UNIT. USE RIGHT SIDE AS

7. RELOCATED EXISTING VAV BOX TO BE REUSED & REBALANCED FOR INDICATED CFM.

&_&_&_&_&_&_&_&_&_&_&_&

	(E)AIR HANDLING UNIT SCHEDULE																																													
						SUPPLY FAN				RETURN FAN			FILTERS			HEATING COIL									CO	OLING CO	OIL					UNIT														
17514	LOCATION	050)405	MANUFACTURER	. Type	AIRFLOW (CFM)			(n. wa)				MOTOR HP A				AN WHEEL SIZE PM AND TYPE			PRE		FIN	AL		AIR S	SIDE		WA	ATER SIDI	Ξ	MAX				AIF	R SIDE			WATER	SIDE	MA	X	MIN		144V CIZ	_ MA	X
ITEM		SERVICE	MANUFACTURER MODEL NUMBER	TIPE		ESP (IN WC)	(TSP (IN WC) (DIRTY FILTERS)	´ FAN				AIRFLOW (CFM)	ESP (IN WC)) DEF		EFF IERV)	DEPTH (IN)	EFF (MERV)	TOTAL (MBH)	EAT DB (°F)	LAT DB (°F)	X APD N WC) G	SPM EWT			FACE N	MIN TOTOMS (ME	FAL SENSI BH) (MB	BLE H) DB (°F)	AT WB D	LAT B WB F) (°F)	MAX AP	PD GPM			FAC WPD VE WC) (FP	ACE MIN OUTSIDE L ROWS AIR	V/PH	/PH (LxWxH) (IN)	E OPERATIN WEIGHT (LBS)	TING HT S)	
RTU-AMB-2	AMB ROOF	FLOOR 1,2,3	-	AF	44,500	2.0		6.0	1190	40/AF	10	0 (98)	40,000	2.0	630	44/AF	40 (31	-	-	8	-	14	-	_	-	-	- -	-	-	-	- 24	03 –	91.0	66.5 49	0.0 48.5	0.5	300	42 58	58 1:	12 47	0 –	13,400	460/3	-	45,0	000 1

1. EXISTING ROOF TOP UNIT. SCHEDULE PROVIDED FOR REFERENCE ONLY.

100% CONSTRUCTION DOCUMENTS SUBMISSION

								11.0884
100% DESIGN DEVELOPMENT	06/08/2012	CONSULTANTS:	KEY PLAN	ARCHITECT/ENGINEERS:	Drawing Title	Project Title	Project Number	
50% CONSTRUCTION DOCUMENTS	07/13/2012	CONSULTANTS:		AROIII LOI/LINGINLLASI	MECHANICAL SCHEDULES	New VA Medical Center	593-202	045
100% CONSTRUCTION DOCUMENTS	08/10/2012	CIVIL: n/a MEP: JBA Consulting Engineers, 5155 Patrick Lane, Las Vegas, NV 89118				Women's Health Center	Building Number	Office of
OWNER'S REVIEW COMMENTS	JAN. 25, 2013	LIFE SAFETY: LaSalle Engineering, LLC, 1000 York Road, Willow Grove, PA 19090 MEDICAL EQUIP. PLANNING: n/a			NTS		_	Facilities
		STRUCTURAL: n/a FOOD SERVICE: n/a					Duantia a Nunala au	Management
		GEOTECHNICAL: n/a			Approved: Project Director	North Las Vegas, NV	Drawing Number	
		TELECOM/SECURITY: RTKL Special Systems Group, 1250 Connecticut Ave., NW, Washington, DC 20036 VERTICAL TRANSPORTATION: n/a		JMA ARCHITECTURE STUDIOS			M-601	
		MATERIALS MANAGEMENT: n/a		A Joint Venture		Date Checked Drawn	INI-OO I	Department of Veterans Affairs
Revisions:	Date		Area F				Dwg. of	Veterans Affairs
VA FORM 08-6231, OCT 1978		<u>L</u>			11			

1 2 8

FAN SCHEDULE OPERATING NOTES ITEM LOCATION WEIGHT (LBS) LEVEL 3 ROOF WOMENS CENTER MOUNTED 2860 1.0 1312 0.94 11/2 1, 2, 3, 4 F-AMB-27 AMB ROOF LEVEL 3 3A337 TREATMENT
 ROOF MOUNTED
 500
 0.4
 1332
 0.11
 1/4
 115/1
 75
 1, 2, 3, 4, 5 EF-AMB-28 AMB ROOF LEVEL 3 3A338 TREATMENT | ROOF | 500 | 0.4 | 1332 | 0.11 | 1/4 | 115/1 | 75 1, 2, 3, 4, 5 EF-AMB-29 AMB ROOF

1. OPERATION AT 2,200 FEET ABOVE SEA LEVEL.

- 5. PROVIDE WITH A MOTOR RATED SWITCH FOR ENABLE/DISABLE OPERATION OF THE ASSOCIATED EXHAUST FAN. SEE SHEET MH-1003F AND MH-1004F FOR LOCATION.
- 2. SPUN CENTRIFUGAL UPBLAST BELT DRIVE FAN. FURNISH WITH MOTOR COVER/BELT GUARD, FACTORY ROOF CURB, AND BACKDRAFT DAMPER.
- 3. PROVIDE VIBRATION ISOLATION PER SPECIFICATIONS.
- 4. FACTORY PROVIDED STARTER AND DISCONNECT SELECTED FOR EXTERIOR USE.

100% CONSTRUCTION DOCUMENTS SUBMISSION

11.0884 Drawing Title

MECHANICAL SCHEDULES Project Title Project Number **KEY PLAN** 100% DESIGN DEVELOPMENT ARCHITECT/ENGINEERS: **CONSULTANTS:** 07/13/2012 New VA Medical Center 593-202 50% CONSTRUCTION DOCUMENTS Office of JAN. 25, 2013

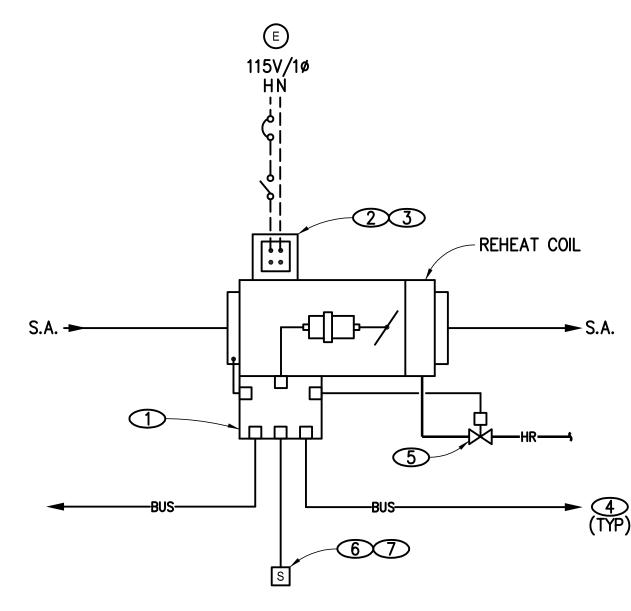
MEP: JBA Consulting Engineers, 5155 Patrick Lane, Las Vegas, NV 89118

LIFE SAFETY: LaSalle Engineering, LLC, 1000 York Road, Willow Grove, PA 19090

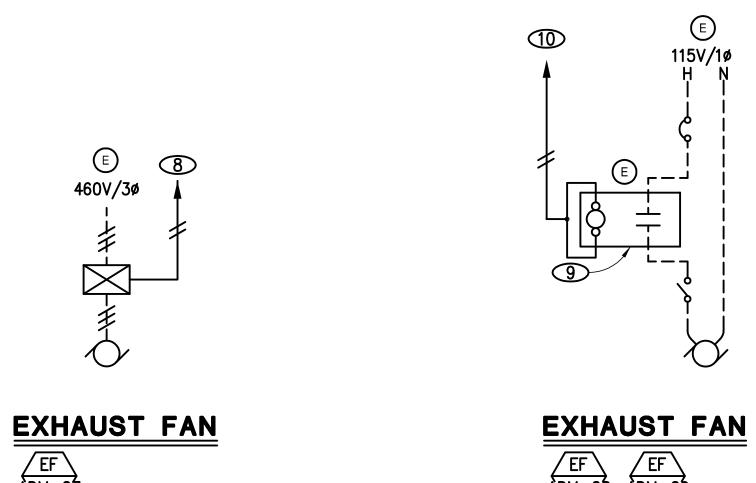
MEDICAL EQUIP. PLANNING: n/a

STRUCTURAL: n/a 100% CONSTRUCTION DOCUMENTS 08/10/2012 **Women's Health Center** Building Number **Facilities** OWNER'S REVIEW COMMENTS RTKL Management Approved: Project Director FOOD SERVICE: n/a GEOTECHNICAL: n/a Drawing Number JMA ARCHITECTURE STUDIOS North Las Vegas, NV TELECOM/SECURITY: RTKL Special Systems Group, 1250 Connecticut Ave., NW, Washington, DC 20036 M-602 VERTICAL TRANSPORTATION: n/a | Checked | Drawn MATERIALS MANAGEMENT: n/a Department of Veterans Affairs A Joint Venture Dwg. **Revisions:** Date

VA FORM 08-6231, OCT 1978



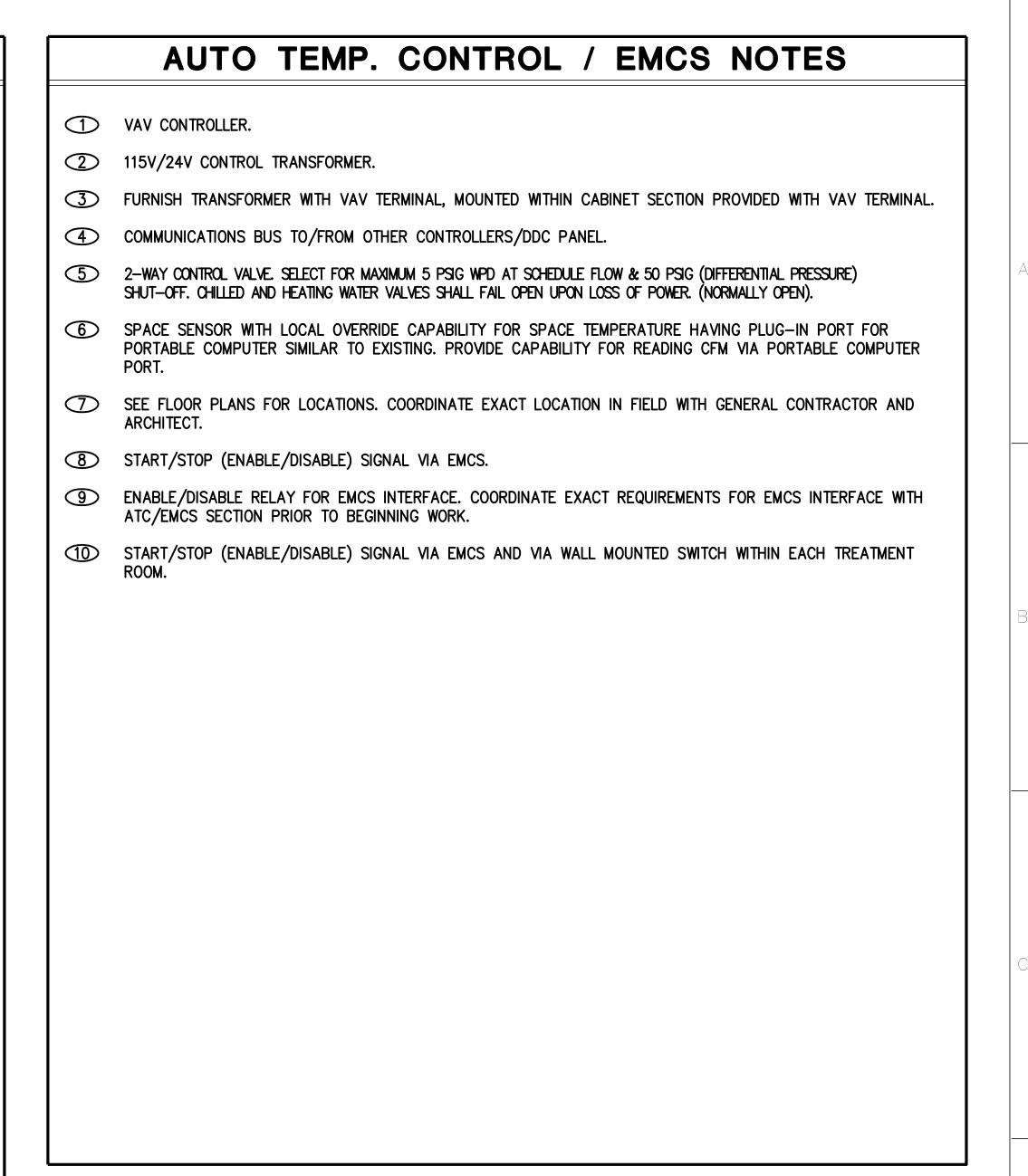
TYP VAV/CV REHEAT TERMINAL (PRESSURE INDEPENDENT)



VA FORM 08-6231, OCT 1978

AUTO TEMP. CONTROL / EMCS LEGEND SPACE SENSOR W/ PLUG-IN PORT AND LOCAL SETPOINT ADJUSTMENT ITEM OR DEVICE PROVIDED BY DIVISION 26 CIRCUIT BREAKER ((E)) ----OVERLOAD PROTECTION (E) INDICATE QUANTITY OF WRES). (E) ---→ OISCONNECT SWITCH (E) CONDUIT AND LOW VOLTAGE (SIGNAL) WIRING PROVIDED BY MECHANICAL CONTRACTOR (ATC/EMCS SECTION) (NO. OF HASH MARKS INDICATES WIRE QUANTITY). VARIABLE FREQUENCY DRIVE, FURN. BY MECHANICAL, INSTALLED & WIRED BY ELECTRICAL. MAGNETIC STARTER W/PILOT LIGHT & HOA SWITCH (E) ELECTRIC/ ELECTRICAL TERMINAL DDC COMMUNICATIONS TRUNK (CONDUIT & WIRE PROVIDED BY DIVISION 23, ATC/ EMCS SECTION). TEMPERATURE SENSOR/TRANSMITTER STATIC PRESSURE TRANSMITTER ELECTRIC/ ELECTRONIC THREE-WAY VALVE ELECTRIC/ ELECTRONIC TWO WAY VALVE (50 PSIG SHUT-OFF) AUTOMATIC TEMPERATURE CONTROLS DIRECT DIGITAL CONTROL ENERGY MANAGEMENT AND CONTROL SYSTEM NORMALLY OPEN NORMALLY CLOSED TRANSFORMER HAND-OFF-AUTO SWITCH START/ STOP (ENABLE/DISABLE) SIGNAL VIA EMCS CONDUIT AND WIRE PROVIDED BY ELECTRICAL (FIRE ALARM SECTION) DUCT MOUNTED PHOTOELECTRIC TYPE ADDRESSABLE SMOKE DETECTOR (FURN., WRED AND TESTED BY DIVISION 26, INSTALLED BY DIVISION 23). DIGITAL OUTPUT DIGITAL INPUT ANALOG OUTPUT ANALOG INPUT HIGH SPEED ETHERNET LAN (LOCAL AREA NETWORK) AIRFLOW MONITORING STATION RELAY (E) PLENUM FAN AIRFOIL/SCROLL FAN

NOTICE: N.C. AND N.O. INDICATES THE FAILED POSITION FOR VALVES AND DAMPERS. UPON POWER FAILURE, THE ACTUATOR SHALL SPRING RETURN TO THE INDICATED "NORMAL" POSITION.



100% CONSTRUCTION DOCUMENTS SUBMISSION

11.0884 Project Title Project Number 100% DESIGN DEVELOPMENT **KEY PLAN** ARCHITECT/ENGINEERS: **CONSULTANTS: MECHANICAL - CONTROL DIAGRAMS** 593-202 **New VA Medical Center** 50% CONSTRUCTION DOCUMENTS 07/13/2012 Office of 100% CONSTRUCTION DOCUMENTS 08/10/2012 **Women's Health Center Building Number** MEP: JBA Consulting Engineers, 5155 Patrick Lane, Las Vegas, NV 89118 **Facilities** LIFE SAFETY: LaSalle Engineering, LLC, 1000 York Road, Willow Grove, PA 19090 RTKL MEDICAL EQUIP. PLANNING: n/a Management STRUCTURAL: n/a Approved: Project Director FOOD SERVICE: n/a Drawing Number GEOTECHNICAL: n/a North Las Vegas, NV JMA ARCHITECTURE STUDIOS TELECOM/SECURITY: RTKL Special Systems Group, 1250 Connecticut Ave., NW, Washington, DC 20036 VERTICAL TRANSPORTATION: n/a Checked MATERIALS MANAGEMENT: n/a Department of Veterans Affairs A Joint Venture Dwg. **Revisions:** Date